



SMP 200MFA

2.0 m Motorised Flyaway Antenna

Satmission Model SMP 200MFA motorised carbon fiber flyaway antenna offers superior performance in a lightweight, portable package. This antenna features a 7 piece carbon fiber segmented reflector designed to provide high gain and low cross pol characteristics.

The motorization package includes a ruggedized outdoor mounted controller with preconnectorised cables allowing for quick assembly and disassembly. The custom-designed elevation-over-azimuth tripod pedestal provides high stiffness with minimal weight.

The antenna components are modular in design which also reduces assembly time and provides an improved packaging scheme requiring less time and effort to pack or unpack the antenna. The molded cases are included.

The antenna is designed to meet international performance specifications for commercial or off-the-shelf military applications and is readily available in C, X, Ku and Ka band frequencies.

Multiple feed and integration configurations are available.



- Intelsat & Eutelsat Compliant
- Multi-Band C, X, Ku and Ka Band Frequencies
- Integrated Feedboom Assembly Option
- Compact Packaging
- Superior Stability in Wind
- Excellent Reliability
- Minimal Maintenance
- Less than 15 min Assembly Time
- Captive Hardware

Technical Specifications

Electrical Specifications	2 Port Cross-Pol C Band Extended Linear Feed		2 Port Cross-Pol C Band Std. Linear Feed		2 Port Cross-Pol C Band Circular Feed		2 Port X Band Circular Polarization		2 Port Cross-Pol Ku Band Linear / Mode Matched Feed	
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx
	Frequency (GHz)	3.40 - 4.20	5.85 - 6.725	3.625 - 4.2	5.85 - 6.425	3.625 - 4.2	5.85 - 6.425	7.25 - 7.75	7.9 - 8.4	10.95 - 12.75
Gain (Midband, dBi)	36.4	40.8	36.6	40.6	36.5	40.6	42.0	42.8	46.2	47.9
Noise Temperature (*K)										
10 deg EI	51		45		55		68		53	
20 deg EI	45		40		50		64		48	
Cross Pol										
On Axis	-30 dB	-30 dB	-30 dB	-30 dB	-20 dB	-27 dB	-30 dB	-30 dB	-35 dB	-35 dB
in 1 dB BW	-26 dB	-26 dB	-26 dB	-26 dB	-20 dB	-27 dB	-30 dB	-30 dB	-25 dB	-35 dB
Axial Ratio					1.6 dB	0.75 dB	0.5 dB	0.5 dB		
Sidelobe Compliances	Meets ITU 580 Beyond Mainbeam		Meets ITU 580 Beyond Mainbeam		Meets ITU 580 Beyond Mainbeam		Mil-Std 188-164A		ITU, FCC Eutelsat	
VSWR	1.40:1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1
Isolation										
Tx/Rx	-85 dB	0 dBm input	-85 dB	0 dBm input	-85 dB	0 dBm input	-120 dB	0 dBm input	-85 dB	0 dBm input
Rx/Tx	0 dBm input	-35 dB	0 dBm input	-35 dB	0 dBm input	-35 dB	0 dBm input	-120 dB	0 dBm input	-30 dB

Mechanical / Environmental Specifications

Reflector	2.0 meters Carbon Fiber
Reflector Configuration	Parabolic Single Offset, 0.8 F/D (7 pieces)
Antenna Travel	
Azimuth	+/- 180° continuous
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Motorized Antenna Packaging (Tri-Band Configuration**)	
Case 1 - Pedestal Legs / Backbeam	114 cm x 64.3 cm x 41.9 , 54 Kg
Case 2 - Az Hub / Foot Pads / EI Actuator / CTLR	95.3 cm x 69.9 cm x 36.8 cm , 54 Kg
Case 3 & 4 - (7 piece reflector)	106.7 cm x 33 cm x 87.6 cm, 37 Kg ea.
Integrated Feed Case with BUC (Per Band)	(Depending on Feed and BUC)
Total Weight (less feed options)	182 Kg
Temperature	
Operational	-20 to 60°C
Survival	-40 to 70°C
Pointing Loss (operational winds)***	2dB typical (Ku-band Rx)
Winds	
Operational	40 kph Gusting to 72 kph with ballast or anchors
Survival	96 kph with tie downs / any position
Feedboom Mounted Integration****	27.2 kg typical
Rain	
Operational	5 cm/h
Survival	10 cm/h
Relative Humidity	0 - 100% (condensing)
Solar Radiation	1000 Kcal/h/m ² ²⁾
Radial Ice (survival)	12.7 mm
Corrosive Atmosphere	As encountered in coastal and/or industrial areas

Note: Specifications subject to change without notice

* Lower Axial Ratio Feeds Available.

** For Ka Band applications, pedestal configuration and packaging not shown.

*** Performance dependent on proper installation and ballast/anchors

**** Dependent on position of weight. Consult Engineering for details

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